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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,456	02/12/2004	James M. Cullen	82126	2299

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EXAMINER

LIEU, JULIE BICHNGOC

ART UNIT	PAPER NUMBER
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2612

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09/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/777,456

Applicant(s)

CULLEN ET AL.

Examiner

Julie Lieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,9,11-30 and 32-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-28,34-43 and 49-54 is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-15, 29-30, 32, 33, and 44-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office action is in response to Applicant's amendment filed July 13, 2007. Claims 1, 11, 26, and 29 have been amended. Claims 10 and 31 have been canceled.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 7, 8, 11, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Kerr et al. (US Patent No. 2004/0062016).

Claim 1:

Kerr et al. (Kerr) discloses a tag comprising:

a. an inlay 10, the inlay comprising:

i. an antenna 30,40, and

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- ii. a wireless communication device 60 coupled to the antenna; and
- b. a plastic extrudate (fig. 12), the plastic extrudate being a unitary member with the antenna 30,40 and the wireless communication device 60 being embedded within the plastic extrudate.

See fig. 12 and fig. 13

Claim 2:

Wireless communication device 60 is a radio frequency (RF) communication device.

Claim 3:

Inlay 10 further comprises a carrier sheet 20 on which the antenna is disposed. Fig. 13.

Claim 7:

There is a mounting adhesive coupled to the plastic extrudate. Para. [0047].

Claim 8:

The wireless communication device 60 is in the form of an integrated circuit (IC) chip which is conductively bonded to the antenna.

Claim 11:

Kerr discloses tag as comprising:

- a. an inlay 10, comprising
 - i. a carrier sheet 20
 - ii. an antenna 30,40 disposed on the carrier sheet 20, and
 - iii. a wireless communication device 60 coupled to the antenna;
- b. a top plastic extrudate member 70; and

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c. a bottom plastic extrudate member 20, wherein the top plastic extrudate member and the bottom plastic extrudate member cooperatively encapsulate the antenna and the wireless communication device.

Claim 44

Kerr discloses a method of continuously manufacturing a plurality of tags, the method comprising the steps of:

- a. providing a single continuous strip (figs. 4 and 5) having a plurality longitudinal cavities at spaced intervals
- b. depositing a an inlay 10 within each cavity, the inlay comprising a carrier web 20, an antenna 30,40 disposed on the carrier web 20, and a wireless communication device 60 coupled to the antennae 30,40 ,
- c. applying a single continuous web 70 to enclose each inlay, and
- c. cutting (inherent) the continuous supply of inlays and the single continuous strip between successive antennae to yield individual tags.

5. Claims 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Grabau et al. (US Patent No. 6,451,154).

Claim 12:

Grabau disclose an apparatus, thus, also a method of continuously manufacturing a plurality of tags, each tag comprising a plastic extrudate and an inlay surrounded by the plastic extrudate, the method comprising the steps of:

- a. providing a continuous supply of inlays 15, the continuous supply of inlays comprising a continuous carrier web 44, a plurality of antennae 15A positioned on the continuous carrier web at spaced intervals and a wireless communication device coupled to each of the antennae,
- b. feeding the continuous supply of inlays 15 into a cross-head extruder so as to yield a continuous block which includes the continuous supply of inlays surrounded by a plastic extrudate 48, and
- c. cutting said continuous block between successive antennae so as to yield individual tags.

See front-page figure and figs. 3, 7-10.

Claim Rejections - 35 USC § 103

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kerr et al. (US Patent No. 2004/0062016).

Claim 4:

It is not clear whether antenna 30,40 is printed onto the carrier sheet 20. however, it would have been obvious to one skilled in the art to use printed circuit technology to print antenna onto the carrier sheet because it is conventional.

7. Claims 5-6, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerr et al. (US Patent No. 2004/0062016) in view of Grabau et al. (US Patent No. 6,451,154).

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Claims 5-6:

Kerr fails to disclose a metallic reflector coupled to the plastic extrudate. However, the use of a metallic backing antennas is old and well known in the art. Therefore, one skilled in the art would have readily recognized the use of a reflector in the device disclosed in Grabau because it would enhance the operating range of the transponder. It would also been obvious to one skilled in the art to laminate the metallic reflector, by using an adhesive, onto the exterior surface of the plastic extrudate because it is at the closest location of the antenna and adhesive is the best way of attaching it to the surface of the plastic extrudate.

Claim 9:

Antenna in Kerr is not a dipole antenna. However, the use of dipole antenna is old and conventional in the art as taught in Grabau. Therefore, one skilled in the art would have readily recognized the desirability of using dipole antenna in the system of Kerr since it is conventional. It is not clearly stated in the Grabau reference that the antenna is bilaterally symmetrical. Nevertheless, it would have been obvious to one skilled in the art to use a bilaterally symmetrical dipole antenna in Grabau's device because it is old and conventional in the art.

Claim 13:

The rejection of claim 13 recites the rejection of claim 5, except it is a method claim.

8. Claims 14, 15, 29, 30, 32, 33, and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabau et al. (US Patent No. 6,451,154).

Claim 14:

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Though not discussed in Grabau, it would have been obvious to one of ordinary skill in the art to cool the continuous block before cutting the web because it is desirable for the device to be rigidly formed.

Claim 15:

Grabau discloses mounting an adhesive to the underside of the continuous block.

Claim 29:

Grabau discloses a continuous supply of inlays comprising:

- a. a continuous web 44,
- b. a plurality of antennae 15B disposed on the top surface of the continuous web at spaced intervals, and
- c. a plurality of wireless communication devices 15A, each wireless communication device being coupled to a corresponding antenna.

See front-page figure.

Though it is not clear whether material web 44 is constructed of, one skilled in the art would have readily recognized using any type of web applicable to the application.

Claim 30:

Each of the plurality of wireless communication devices is a radio frequency (RF) communication device.

Claim 32:

The plurality of antennae is printed onto the top surface of the continuous web.

Claim 33:

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Each wireless communication device 15A is conductively coupled to a corresponding antenna.

Claim 45:

Grabau fails to disclose step of crimping. However, it would have been obvious to one skilled in the art to crimp the device before cutting because it is desired to secure the device to the web and the top cover or laminating layer.

Claim 46:

The rejection of claim 46 recites the rejection of claim 5, except it is a method claim.

Claim 47:

Grabau further discloses the step of coupling a mounting adhesive to the underside of the single continuous strip. See figure 12.

Claim 48:

It appears that the continuous strip in Grabau is formed by extrusion and cavities in the continuous strip are formed by thermoforming wherein the continuous web is formed by extrusion molding.

Allowable Subject Matter

9. Claims 16-28, 34-43, and 49-54 are allowed.

Conclusion

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10. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 571-272-2978. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Julie Lieu
Primary Examiner
Art Unit 2612

Sept 19, 07